TECHNICAL REVIEW DOCUMENT for OPERATING PERMIT 010PBE233

to be issued to:

Las Animas Municipal Power Plant Bent County Source ID 0110005

Prepared by Cathy Rhodes
June. 2001

I. PURPOSE:

This document establishes the basis for decisions made regarding the Applicable Requirements, Emission Factors, Monitoring Plan and Compliance Status of Emission Units covered within the Operating Permit proposed for this site. It is designed for reference during review of the proposed permit by the EPA and during Public Comment. This narrative is intended only as an adjunct for the reviewer and has no legal standing. Conclusions in this document are based on information provided in the original application submittal of March 15, 2001.

Any revisions made to the underlying construction permits associated with this facility in conjunction with the processing of this operating permit application have been reviewed in accordance with the requirements of Regulation No. 3, part B, Construction Permits, and have been found to meet all applicable substantive and procedural requirements. This operating permit incorporates and shall be considered to be a combined construction/operating permit for any such revision, and the permittee shall be allowed to operate under the revised conditions upon issuance of this operating permit without applying for a revision to this permit or for an additional or revised Construction Permit.

II. Source Description:

This source is classified as an electric services facility under Standard Industrial Classification 4911. The Las Animas Municipal Power Plant consists of five (5) operable internal combustion engine — electrical generating sets. The units were originally installed and operated for year-round, baseload operation, but have been operating in a standby mode since the early 1980's. The generator sets are rated as follows: Unit 1 - 300 kw; Unit 2 - 250 kw; Unit 4 - 1,225 kw; Unit 5 - 1,225 kw; and Unit 6 - 3,000 kw. Units 1 and 2 are diesel fired, and Units 4, 5, and 6 are dual fuel fired, either diesel fuel alone or a combination of diesel and natural gas

This facility is located in Las Animas at 8th & Moore, in Bent County. This facility is located in an area that has been designated as attainment for all criteria pollutants. There are no affected

states located within 50 miles of the facility. There are no federal class I designated areas within 100 km of this facility.

Facility wide emissions are as follows (tons/year):

Pollutant		<u>Actual</u>		<u>Potential</u>
Particulate Matter		<1		61
PM_{10}		<1		58
Nitrogen Oxides (NO _x)		4		866
Sulfur Dioxide (SO ₂)	<1		57	
Volatile Organic Compounds (VOC)		<1		58
Carbon Monoxide		1		185

Actual emissions are based on 2000 data. During 2000, the plant served primarily for standby/backup electric generation. Potential emissions are based on maximum operating rates.

This facility does not emit significant amounts of Hazardous Air Pollutants (HAPs), according to the permit application. The facility is not subject to the Accidental Release Plan provisions of 112(r)(7) of the Clean Air Act.

Prevention of Significant Deterioration (PSD)

This plant is located in an area designated as attainment for all pollutants. The facility is an existing major source for purposes of PSD.

Compliance Assurance Monitoring (CAM)

This facility does not employ control equipment, and is not subject to the CAM requirements.

Title IV Acid Rain

This facility is not subject to the Acid Rain provisions. They were constructed prior to the applicability date, and the size of the units is below applicable rates.

III. EMISSION SOURCES:

SUMMARY DESCRIPTION OF PROCESS

The following sources are specifically regulated under terms and conditions of the Operating Permit.

E01 – 300 kw diesel fired Internal Combustion Reciprocating Engine-Electrical Generating Set

E02 – 250 kw diesel fired Internal Combustion Reciprocating Engine-Electrical Generating Set

E04 – 1,225 kw dual fired Internal Combustion Reciprocating Engine-Electrical Generating Set

E05 – 1.225 kw dual fired Internal Combustion Reciprocating Engine-Electrical Generating Set

E06 – 3,000 kw dual fired Internal Combustion Reciprocating Engine-Electrical Generating Set

These units were installed in the 1940's, 50's and '60's. They are grandfathered from Construction Permit requirements.

Applicable Requirements- Applicable requirements are as follows.

Colorado Regulation No. 1

 Opacity not to exceed 20%, except during certain operating conditions, when opacity shall not exceed 30% (Sections II.1 and 4)

Colorado Regulation No. 3

APEN reporting requirements

Emission Factors- Emission factors are based on the EPA Document 450/4-90-003, "AIRS Facility Subsystem – Source Classification Codes and Emission Factors for Criteria Air Pollutants." Individual emission factors for diesel fuel and natural gas are used instead of the factors for dual fired engines, because the separate factors better represent operation of the units at this facility.

Monitoring Plan- The permittee will calculate emissions for APEN eporting and fee purposes based on actual fuel consumption. Specific monitoring guidance for Internal Combustion Engines located in attainment areas has been developed by the Division, as shown on the attached grid, titled "Compliance/Scenario Summary – Gas Fired IC Engines." The emission factors proposed are equal to or greater than AP-42 factors for all pollutants, therefore, according to the monitoring grid, the permittee will be required to perform emission calculations and record fuel use on an annual basis.

Opacity — Method 9 readings will be performed at least quarterly during normal operation (provided conditions exist under which a Method 9 observation can be performed during that quarter). In addition, a Method 9 observation will be made whenever start-up lasts more than ten minutes.

IV. Emission Factors

Tech Review Summary – Las Animas Municipal Power Plant

From time to time published emission factors are changed based on new or improved data. A logical concern is what happens if the use of the new emission factor in a calculation results in a source being out of compliance with a permit limit. For this operating permit, the emission factors or emission factor equations included in the permit are considered to be fixed until changed by the permit. Factors dependent on the fuel sulfur content or heat content can not be fixed and will vary with the test results. The formula for determining the emission factors is, however, fixed. It is the responsibility of the permittee to be aware of changes in the factors, and to notify the Division in writing of impacts on the permit requirements when there is a change in factors. Upon notification, the Division will work with the permittee to address the situation.